#### Darshil Dhiraj Chheda

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#### **EDUCATION**

# Master of Science in Cybersecurity, Indiana University Bloomington, IN, USA

GPA: 3.8 / 4.0 Courses: Applied Algorithm, Security for Networked System, Advanced System Security, Malware Threat Defense Jan 2022 – Dec 2023

Bachelor of Engineering in Computer Engineering, University of Mumbai, Maharashtra, India

GPA: 3.7 / 4.0

Courses: Data Structures, Computer Networks, Machine Learning, Digital Forensics, Cryptography

Aug 2016 – Sep 2020

#### **SKILLS**

Python, Java, Go, C#, C++, Bash (Shell Scripting), Dart, JavaScript, TypeScript, Swift, PHP, Kotlin, HTML/CSS Languages:

Frameworks: React, Angular, Spring Boot, Node.js, Three.js, Next.js, Vue.js, Tailwind CSS, Django, .NET, Flutter, Android, iOS, Flask

Databases: PostgreSQL, MySQL, SQL Server, MongoDB, Firebase, NoSQL, GraphSQL

Tools: Git, Postman, Figma, VS Code, JIRA, Eclipse, Apache, JMeter, Cypress, Selenium, Appium, JUnit, gRPC, SoapUI Other Technologies: Docker, Containerization, CI/CD, Microservices, Kubernetes, AWS (S3, Lambda, IAM, EC2), Azure, Linux, DevOps Corporate Identity, Endpoint Security, Data Loss Prevention, Device Trust, SaaS Security, Zero Trust, Debugging, Cybersecurity: TCP, IP, VLANs, VPNs, Troubleshoot, Network Security, DNS, DHCP, Routing Protocols Ghidra, IDA Pro, Metasploit

#### **WORK EXPERIENCE**

#### Software Engineer II | Indiana University | Remote, USA | Google Play Store & Apple App Store

May 2023 – Present

- Led HIPAA-compliant development of an AI-powered chatbot for Alzheimer's by leveraging ChatGPT to enhance readability and LLM models, engaging over 50,000 users and increasing interaction by 40% in the African American community.
- Developed a cross-platform mobile application built with Flutter for Alzheimer's support, working closely with design and QA teams to boost engagement with 10,000+ iOS and Android users and elevate accessibility for dementia patients.
- Utilized **Docker and Kubernetes** to deploy healthcare app features in isolated containers while conducting comprehensive **testing with** Selenium and JUnit, achieving a 98% crash-free rate for 5,000 daily users and strengthening data security for 3,000 patients.
- Adopted MVVM architecture in a React app for stress monitoring, doing 99.9% uptime, proactively optimizing and improving user health tracking accuracy with PostgreSQL integration for robust data management.

## Graduate Associate Instructor | Indiana University | Indiana, USA

Aug 2022 – May 2023

- Facilitated problem-solving skills for 150 students in Applied Algorithms, educating through interactive sessions.
- Delivered security knowledge to 80 students, introducing innovative exercises on DES, AES, and Cipher techniques, advancing student proficiency in cybersecurity topics, and demonstrating effective educational engagement and subject mastery.

#### Software Engineer | Daxy - The Digital Taxi | Mumbai, India

Jun 2020 – Dec 2021

- Created a Progressive Web App (PWA) for B2B e-commerce employing React and Django, boosting diamond customization sales and raising product listings by 250 items, showcasing advanced UI design skills.
- Engineered responsive full-stack e-commerce sites with Angular, Vue.js, and REST APIs, facilitating team coordination to streamline workflows with Apache Airflow for ETL.
- Leveraged MongoDB and Node.js to architect a secure e-commerce platform, reducing catalog management efforts by 35% and integrating CAPTCHAs and Stripe, fortifying system security achieving 99% reduction in fraud.
- Built responsive e-commerce systems employing Django and Next.js, optimized with Azure DevOps for CI/CD, resulting in a scalable architecture supporting extensive inventory management.

#### **PROJECTS**

# How Can Disney+ Widen Subscriber Base? | GitHub:

Oct 2023 – Dec 2023

- Directed comprehensive data analysis on over 1800 Disney+ titles using web scraping and SQL, resulting in actionable recommendations to increase subscriber growth.
- Formulated 50+ complex SQL queries for data systems analysis, improving subscriber data handling and reporting efficiency.

## **Automated SQL Injection Attack:**

Mar 2023 – May 2023

- Executed Python for SQL Injection, enhancing database security by programming sensitive data, in line OWASP's vulnerabilities.
- Created an automated solution to pinpoint SQL Injection vulnerabilities, cutting down manual identification of susceptible tables and columns by 80%, thereby streamlining security auditing process and mitigating risk exposure in large-scale databases.

# Data Analysis on Psychometric Assessments | GitHub:

Jan 2023 – Apr 2023

- Developed a mobile application implementing Flutter, introducing mobile versions of psychological tests to 2,000+ users.
- Crafted 150+ data extraction routines with SQL and Python, analyzing responses from 2,500+ users, augmenting cybersecurity awareness and data analysis capabilities using machine learning and statistical methods.

# **Reverse Engineering using IDA Pro:**

Sep 2022 – Dec 2022

- Conducted reverse engineering analysis utilizing IDA Pro, identifying 200+ unnecessary data extraction methods and strengthening security and privacy on 1,000+ Swift-based iOS devices.
- Implemented reverse engineering techniques to uncover vulnerabilities, reducing app security risks by 60% in research project.